

REMARKS

This application has been reviewed in light of the Office Action dated November 1, 2006. Claims 14-19 are presented for examination, of which Claims 14, 18 and 19 are in independent form. Favorable reconsideration is respectfully requested.

Initially, Applicants again respectfully request that the Examiner consider the Supplemental Information Disclosure Statement filed on March 22, 2002. Applicants note that another copy of that Supplemental Information Disclosure Statement was submitted on October 31, 2006, in response to the Examiner's telephonic request¹ of October 26, 2006. Also submitted on October 31, 2006 was a copy of a return post card, bearing the Patent and Trademark Office stamp acknowledging receipt of that Supplemental Information Disclosure Statement and accompanying documents on March 22, 2002.

Applicants again respectfully request that the Examiner consider and make of record the information cited in that Supplemental Information Disclosure Statement.

In the Office Action, Claims 14-16, 18, and 19 were rejected under U.S.C. § 103(a) as being obvious from U.S. Patent No. 6,781,716 to Yoda in view of U.S. Patent No. 7,092,119 to Hinds; and Claim 16, as being obvious from Yoda in view of Hinds and further in view of U.S. Patent 6,571,000 to Rasmussen.

¹In this regard, please see the Examiner-Initiated Interview Summary mailed with the Office Action on November 1, 2006, as well as paragraph 5 of the Office Action. During the interview, one of Applicants' attorneys agreed to re-submit another copy of that Supplemental Information Disclosure Statement, including copies of the documents listed therein other than U.S. patent documents, and a copy of the return post card.

Independent Claim 14 is directed to a method of performing color processing to output color data to an image processing unit, and comprises acquiring spectral data which indicates an input color, and acquiring characteristic information of the image processing unit. A color data format of color data in accordance with the acquired characteristic information of the image processing unit is determined, to output the color data to the image processing unit. Color data having the determined color data format is generated from the acquired spectral data, and is outputted to the image processing unit. Also, according to Claim 14, the color data format includes a spectral data format, and a color component format which indicates a color using a plurality of color component data, and the generating step includes calculating the plurality of color component data from the spectral data when the color component format is determined as the color data format in the determining step.

Among other notable features of a method according to Claim 14, is that a color data format that can be processed by an image processing unit is determined in accordance with character information of the image processing unit, and color data having the determined color data format is generated from spectral data to output the generated color data to the image processing unit. By virtue of this feature, the method of Claim 14 can support various signal processing systems such as the RGB XYZ, Lab, or spectral signal processing system, because the present method involves acquiring spectral data and generating color data to be output to the image processing unit from the acquired spectral data. (Applicants note that accurate spectral data is not generated from RGB data.)

Yoda, as understood by Applicants, relates to color conversion in which input RGB or CMYK data is converted to Lab data using an input profile as shown in Fig.

4 or 5. The input profile is generated by a method described in col. 10, line 51, to col. 11, line 4, but it should be noted that *Yoda* does not suggest using spectral data to generate the profile. Moreover, the *Yoda* system does not determine a color data format which can be processed by an image processing unit, as is recited in Claim 14.

The Examiner states, at page 3 of the Office Action, that *Yoda* discloses “acquiring spectral data (see Fig. 1, scanner 10 obtains input color data as spectral data in step (a) of Fig. 14 [column 2, lines 42-48, column 9, lines 47-56, column 19, lines 23-32 and column 21, lines 24-28])...”

The spectral data of Claim 14 is discussed in the present application as a function of wavelength. For example, as shown in Fig. 5 of the present application, XYZ data is calculated by operating the convolution of the spectral data and the color matching function. And, as shown in Fig. 6, RGB data is calculated by operating the convolution of the spectral data and the RGB spectral distribution characteristic. In other words, the XYZ and RGB data correspond to data obtained by integrating the spectral data in a predetermined wavelength area, and, thus, the spectral data of Claim 14 is different from color data having a color component format such as XYZ data, RGB data and the like.

Column 2, lines 42-48 of *Yoda*, cited in the Office Action, discusses XYZ data and Lab data which are the color data having the color component format (see column 2, lines 42-48). Applicants note that the Lab data can be obtained by modifying the XYZ data. Column 9, lines 47-56 of *Yoda*, cited in the Office Action, discusses that an input device, such as a scanner and a digital still camera, inputs image data. Column 19, lines 23-32, cited in the Office Action, discusses color conversion using a LUT. Column 21, lines 24-28, discusses that the input device inputs color data defined by coordinate values

within the input device color space. The input device color space generally corresponds to RGB color space, and, thus, the color data is RGB data. Therefore, the cited portions of Yoda merely discuss color data having the color component format; nothing in the cited portions of Yoda, or indeed in any other portion of that patent, would teach or suggest the spectral data of Claim 14.

The method of Claim 14 includes determining a color data format of which an image processing unit (see, for example, elements 209, 210 or 211 of Fig. 4)² can process color data, and generating the color data having the determined color data format from the spectral data. By virtue of the features of Claim 14, the color data is generated from the spectral data and, thus, accurate color data having various color data formats, such as RGB, XYZ, Lab and the like, can be generated. However, if Yoda generates the color data having various color component formats from the RGB data in the input device color space, the generated color data is not accurate compared with the color data generated from the spectral data.

Hinds, as understood by Applicants, relates to managing calibration files in a printing system, but does not supply what is missing from Yoda.

Nothing in Yoda or Hinds, whether considered either separately or in any permissible combination (if any) would teach or suggest determining a color data format of color data in accordance with acquired characteristic information of an image processing unit to output the color data to the image processing unit, and generating the color data

²It is of course to be understood that the references to various portions of the present application are by way of illustration and example only, and that the claims are not limited by the details shown in the portions referred to.

having the determined color data format from acquired spectral data which indicates an input color, as recited in Claim 14.

Accordingly, Claim 14 is seen to be clearly allowable over Yoda and Hinds, whether considered either separately or in any permissible combination (if any).

Independent Claims 18 and 19 are computer memory medium and apparatus claims, respectively, corresponding to method Claim 14, and are believed to be patentable for at least the same reasons as discussed above in connection with Claim 14.

A review of the other art of record, including *Rasmussen*, has failed to reveal anything which, in Applicants' opinion, would remedy the deficiencies of the art discussed above, as a reference against the independent claims herein. Those claims are therefore believed patentable over the art of record.

The other claims in this application are each dependent from Claim 14, and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and allowance of the present application.